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— *See* Nguyen, Mattei, Mattei, Santoni, Goridis, and Jordan.
Gorza, L., Sartore, S., Thornell, L. E., and Schiaffino, S. Myosin types and fiber types in cardiac muscle. III. Nodal conduction tissue. 1758.
Gottlieb, T. A., Gonzalez, A., Rizzolo, L., Rindler, M. J., Adesnik, M., and Sabatini, D. D. Sorting and endocytosis of viral glycoproteins in transfected polarized epithelial cells. 1242.
Gottmann, K., and Weijer, C. J. In situ measurements of external pH and optical density oscillations in *Dictyostelium discoideum* aggregates. 1623.
Gould, K. L., Cooper, J. A., Bretscher, A., and Hunter, T. The protein-tyrosine kinase substrate, p81, is homologous to a chicken microvillar core protein. 660.
Gramzow, M., Bachmann, M., Uhlenbruck, G., Dorn, A., and Müller, W. E. G. Identification and further characterization of the specific cell binding fragment from sponge aggregation factor. 1344.
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— *See* Rothwell, Grasser, and Murphy.
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Greenberg, S. M. *See* Eppler, Bayley, Greenberg, and Schwartz.
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Grumet, M. *See* Crossin, Hoffman, Grumet, Thiery, and Edelman.
— *See* Friedlander, Grumet, and Edelman.
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Hayashi, M., Ninomiya, Y., Parsons, J., Hayashi, K., Olsen, B. R., and Trelstad, R. L. Differential localization of mRNAs of collagen types I and II in chick fibroblasts, chondrocytes, and corneal cells by in situ hybridization using cDNA probes. 2302.
Hayward, L. J., and Schwartz, R. J. Sequential expression of chicken actin genes during myogenesis. 1485.

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Hendershot, L. M. *See* Bole, Hendershot, and Kearney.
Henson, P. M. *See* Riches and Henson.
Hepler, P. K., and Palevitz, B. A. Metabolic inhibitors block anaphase A in vivo. 1995.
Herzig, M. A. *See* Cheresh, Pierschbacher, Herzig, and Mujoo.
Hess, A. D. *See* Simons, Noga, Colombani, Beschorner, Coffey, and Hess.
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Hill, C., and Weber, K. Monoclonal antibodies distinguish titins from heart and skeletal muscle. 1099.
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Hochstrasser, M., Mathog, D., Gruenbaum, Y., Saumweber, H., and Sedat, J. W. Spatial organization of chromosomes in the salivary gland nuclei of *Drosophila melanogaster*. 112.
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Hopkins, C. R. *See* Miller, Beardmore, Kanety, Schlessinger, and Hopkins.
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Jastorff, B. *See* Richter-Landsberg and Jastorff.
Jeffrey, J. J. *See* Blair, Kahn, Crouch, Jeffrey, and Teitelbaum.
Jesaitis, A. J., and Yguerabide, J. Lateral mobility of the (Na^+,K^+)-dependent ATPase in Madin-Darby canine kidney cells. 1256.
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— *See* Schindler and Jiang.
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Johnson, R. G. *See* Johnson, Lampe, Hur, Louis, and Johnson.
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Kahn, A. J. *See* Blair, Kahn, Crouch, Jeffrey, and Teitelbaum.
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— *See* Robinson, Okada, Castellot, and Karnovsky.
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— *See* Weissman, Klausner, Rao, and Harford.
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Knaack, D., Shen, I., Salpeter, M. M., and Podleski, T. R. Selective effects of ascorbic acid on acetylcholine receptor number and distribution. 795.
Knox, P., Crooks, S., and Rimmer, C. S. Role of fibronectin in the migration of fibroblasts into plasma clots. 2318.
Kobayashi, T., Tsukita, S., Tsukita, S., Yamamoto, Y., and Matsumoto, G. Subaxolemmal cytoskeleton in squid giant axon. I. Biochemical analysis of microtubules, microfilaments, and their associated high-molecular-weight proteins. 1699.
— *See* Tsukita, Tsukita, Kobayashi, and Matsumoto.
Kohorn, B. D., Harel, E., Chitnis, P. R., Thornber, J. P., and Tobin, E. M. Functional and mutational analysis of the light-harvesting chlorophyll *a/b* protein of thylakoid membranes. 972.
— *See* Chitnis, Harel, Kohorn, Tobin, and Thornber.
Kolega, J. Effects of mechanical tension on protrusive activity and microfilament and intermediate filament organization in an epidermal epithelium moving in culture. 1400.

Kordeli, E., Cartaud, J., Nghiêm, H.-O., Pradel, L.-A., Dubreuil, C., Paulin, D., and Changeux, J.-P. Evidence for a polarity in the distribution of proteins from the cytoskeleton in *Torpedo marmorata* electrocytes. 748.
Kosher, R. A., Kulyk, W. M., and Gay, S. W. Collagen gene expression during limb cartilage differentiation. 1151.
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— *See* Kingsley, Kozarsky, Segal, and Krieger.
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— *See* Kozarsky, Brush, and Krieger.
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Kulyk, W. M. *See* Kosher, Kulyk, and Gay.
Kuznetsov, S. A., Rodionov, V. I., Nadezhdina, E. S., Murphy, D. B., and Gelfand, V. I. Identification of a 34-kD polypeptide as a light chain of microtubule-associated protein-1 (MAP-1) and its association with a MAP-1 peptide that binds to microtubules. 1060.

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Lee, J. H. *See* Mar, Lee, Shea, and Walsh.
Lee, S. C., Sabath, D. E., Deutsch, C., and Prystowsky, M. B. Increased voltage-gated potassium conductance during interleukin 2–stimulated proliferation of a mouse helper T lymphocyte clone. 1200.
Lessard, J. L. *See* Otey, Kalnoski, Lessard, and Bulinski.
Letourneau, P. C. *See* Ciment, Ressler, Letourneau, and Weston.
LeVine, H., III *See* Burgess, Sahyoun, Blanchard, LeVine, Chang, and Cuatrecasas.
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—, Villasante, A., Sherline, P., and Cowan, N. J. Brain-specific expression of MAP2 detected using a cloned cDNA probe. 2089.
Lin, S. *See* Wilkens and Lin.
Linsenmayer, T. F. *See* Sanderson, Fitch, Linsenmayer, and Mayne.
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Logeat, F. *See* Perrot-Applanat, Groyer-Picard, Logeat, and Milgrom.
Logvinenko, K. B. *See* Nixon and Logvinenko.
Lombardi, T., Montesano, R., Furie, M. B., Silverstein, S. C., and Orci, L. Endothelial diaphragmed fenestrae: in vitro modulation by phorbol myristate acetate. 1965.
Lopez-Rivas, A. *See* Mendoza, Schneider, Lopez-Rivas, Sinnett-Smith, and Rozengurt.
Lormeau, J.-C. *See* Castellot, Choay, Lormeau, Petitou, Sache, and Karnovsky.
Louis, C. F. *See* Johnson, Lampe, Hur, Louis, and Johnson.
Luby-Phelps, K., Taylor, D. L., and Lanni, F. Probing the structure of cytoplasm. 2015.
Lucocq, J. M., Brada, D., and Roth, J. Immunolocalization of the oligosaccharide trimming enzyme glucosidase I. 2137.
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Maeda, M., and Thompson, G. A., Jr. On the mechanism of rapid plasma membrane and chloroplast envelope expansion in *Dunaliella salina* exposed to hypoosmotic shock. 289.
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Mandelkow, E. *See* Mandelkow, Schultheiss, Rapp, Müller, and Mandelkow.
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— *See* Tsukita, Tsukita, Kobayashi, and Matsumoto.
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Mattei, M.-G. *See* Nguyen, Mattei, Mattei, Santoni, Goridis, and Jordan.
Mattsson, M. E. K., Enberg, G., Ruusala, A.-I., Hall, K., and Påhlman, S. Mitogenic response of human SH-SY5Y neuroblastoma cells to insulin-like growth factor I and II is dependent on the stage of differentiation. 1949.
Maxwell, G. D. *See* Runyan, Maxwell, and Shur.
Mayadas, T. *See* Wagner, Mayadas, and Marder.
Maycox, P. R. *See* Bowles, Marcus, Pappin, Findlay, Eliopoulos, Maycox, and Burgess.
Mayne, R. *See* Sanderson, Fitch, Linsenmayer, and Mayne.
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—, and Poo, M-m. Contact-induced redistribution of specific membrane components: local accumulation and development of adhesion. 2185.
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Mendoza, S. A., Schneider, J. A., Lopez-Rivas, A., Sinnett-Smith, J. W., and Rozengurt, E. Early events elicited by bombesin and structurally related peptides in quiescent Swiss 3T3 cells. II. Changes in Na^+ and Ca^{2+} fluxes, Na^+/K^+ pump activity, and intracellular pH. 2223.
Menon, A. K., Holowka, D., Webb, W. W., and Baird, B. Clustering, mobility, and triggering activity of small oligomers of immunoglobulin E on rat basophilic leukemia cells. 534.
—, Holowka, D., Webb, W. W., and Baird, B. Cross-linking of receptor-bound IgE to aggregates larger than dimers leads to rapid immobilization. 541.
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Milgrom, E. *See* Perrot-Applanat, Groyer-Picard, Logeat, and Milgrom.
Milks, L. C. *See* Cramer, Milks, Brontoli, Ojakian, Wright, and Showell.
Miller, K., Beardmore, J., Kanety, H., Schlessinger, J., and Hopkins, C. R. Localization of the epidermal growth factor (EGF) receptor within the endosome of EGF-stimulated epidermoid carcinoma (A431) cells. 500.
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Moss, J. *See* Spiegel, Yamada, Hom, Moss, and Fishman.
Mostov, K. E. *See* Deitcher, Neutra, and Mostov.
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Müller-Glauser, W., Humbel, B., Glatt, M., Sträuli, P., Winterhalter, K. H., and Bruckner, P. On the role of type IX collagen in the extracellular matrix of cartilage: type IX collagen is localized to intersections of collagen fibrils. 1931.
Murphy, D. B., Grasser, W. A., and Wallis, K. T. Immunofluorescence examination of beta tubulin expression and marginal band formation in developing chicken erythroblasts. 628.
— *See* Kuznetsov, Rodionov, Nadezhdina, Murphy, and Gelfand.
— *See* Rothwell, Grasser, and Murphy.
Murphy, G. *See* Werb, Hembry, Murphy, and Aggeler.
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—, Twardzik, D. R., and Auersperg, N. Cell-mediated co-action of transforming growth factors: incubation of type β with normal rat kidney cells produces a soluble activity that prolongs the ruffling response to type α. 1230.

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Naccache, P. H. *See* Sha'afi, Shefcyk, Yassin, Molski, Volpi, Naccache, White, Feinstein, and Becker.
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Nadezhdina, E. S. *See* Kuznetsov, Rodionov, Nadezhdina, Murphy, and Gelfand.
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Nelson, B. C. *See* Goldmacher, Tinnel, and Nelson.
Neutra, M. R. *See* Deitcher, Neutra, and Mostov.
Nghiêm, H.-O. *See* Kordeli, Cartaud, Nghiêm, Pradel, Dubreuil, Paulin, and Changeux.
Nguyen, C., Mattei, M.-G., Mattei, J.-F., Santoni, M.-J., Goridis, C., and Jordan, B. R. Localization of the human NCAM gene to band q23 of chromosome 11: the third gene coding for a cell interaction molecule mapped to the distal portion of the long arm of chromosome 11. 711.
Nicolet, M., Pinçon-Raymond, M., and Rieger, F. Globular and asymmetric acetylcholinesterase in frog muscle basal lamina sheaths. 762.
Ninomiya, Y. *See* Hayashi, Ninomiya, Parsons, Hayashi, Olsen, and Trelstad.
Nixon, R. A., and Logvinenko, K. B. Multiple fates of newly synthesized neurofilament proteins: evidence for a stationary neurofilament network distributed nonuniformly along axons of retinal ganglion cell neurons. 647.
Noga, S. J. *See* Simons, Noga, Colombani, Beschorner, Coffey, and Hess.
Nyman, U., Hallman, H., Hadlaczky, G., Pettersson, I., Sharp, G., and Ringertz, N. R. Intranuclear localization of snRNP antigens. 137.

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Oberdorf, J. A., Head, J. F., and Kaminer, B. Calcium uptake and release by isolated cortices and microsomes from the unfertilized egg of the sea urchin *Strongylocentrotus droebachiensis*. 2205.
Ohkuma, S., Chudzik, J., and Poole, B. The effects of basic substances and acidic ionophores on the digestion of exogenous and endogenous proteins in mouse peritoneal macrophages. 959.

Ojakian, G. K. *See* Cramer, Milks, Brontoli, Ojakian, Wright, and Showell.
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Olins, D. E. *See* Allen, Kennel, Cacheiro, Olins, and Olins.
Olsen, B. R. *See* Hayashi, Ninomiya, Parsons, Hayashi, Olsen, and Trelstad.
Olsnes, S., Tønnessen, T. I., and Sandvig, K. pH-regulated anion antiport in nucleated mammalian cells. 967.
— *See* van Deurs, Tønnessen, Petersen, Sandvig, and Olsnes.
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— *See* Lombardi, Montesano, Furie, Silverstein, and Orci.
Osborn, M. *See* Bartnik, Osborn, and Weber.
Otey, C. A., Kalnoski, M. H., Lessard, J. L., and Bulinski, J. C. Immunolocalization of the gamma isoform of nonmuscle actin in cultured cells. 1726.
Owens, G. K., Loeb, A., Gordon, D., and Thompson, M. M. Expression of smooth muscle-specific α-isoactin in cultured vascular smooth muscle cells: relationship between growth and cytodifferentiation. 343.

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Parsons, J. *See* Hayashi, Ninomiya, Parsons, Hayashi, Olsen, and Trelstad.
Patel, V. P., and Lodish, H. F. The fibronectin receptor on mammalian erythroid precursor cells: characterization and developmental regulation. 449.
Pathak, R. K., Luskey, K. L., and Anderson, R. G. W. Biogenesis of the crystalloid endoplasmic reticulum in UT-1 cells: evidence that newly formed endoplasmic reticulum emerges from the nuclear envelope. 2158.
Patzak, A., and Winkler, H. Exocytotic exposure and recycling of membrane antigens of chromaffin granules: ultrastructural evaluation after immunolabeling. 510.
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— *See* Ward, Roberts, Strome, Pavalko, and Hogan.
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Perrot-Applanat, M., Groyer-Picard, M.-T., Logeat, F., and Milgrom, E. Ultrastructural localization of the progesterone receptor by an immunogold method: effect of hormone administration. 1191.
Peters, R. *See* Lang, Scholz, and Peters.
Petersen, O. W. *See* van Deurs, Tønnessen, Petersen, Sandvig, and Olsnes.
Petitou, M. *See* Castellot, Choay, Lormeau, Petitou, Sache, and Karnovsky.
Pettersson, I. *See* Nyman, Hallman, Hadlaczky, Pettersson, Sharp, and Ringertz.
Pierschbacher, M. D. *See* Cheresh, Pierschbacher, Herzig, and Mujoo.
Pinçon-Raymond, M. *See* Nicolet, Pinçon-Raymond, and Rieger.
Pinto da Silva, P. *See* Kan and Pinto da Silva.
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Podleski, T. R. *See* Knaack, Shen, Salpeter, and Podleski.
Pollack, G. H. *See* Suzuki and Pollack.
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Poo, M-m. *See* McCloskey and Poo.
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Pozzan, T. *See* Lew, Monod, Waldvogel, Dewald, Baggiolini, and Pozzan.
Pradel, L.-A. *See* Kordeli, Cartaud, Nghiêm, Pradel, Dubreuil, Paulin, and Changeux.
Prediger, E. A. *See* Murray, Hemperly, Prediger, Edelman, and Cunningham.
Presky, D. H., and Schonbrunn, A. Receptor-bound somatostatin and epidermal growth factor are processed differently in GH_4C_1 rat pituitary cells. 878.
Prystowsky, M. B. *See* Lee, Sabath, Deutsch, and Prystowsky.
Puddington, L., Machamer, C. E., and Rose, J. K. Cytoplasmic domains of cellular and viral integral membrane proteins substitute for the cytoplasmic domain of the vesicular stomatitis virus glycoprotein in transport to the plasma membrane. 2147.

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Raff, M. C. *See* ffrench-Constant, Miller, Kruse, Schachner, and Raff.
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Rao, K. *See* Weissman, Klausner, Rao, and Harford.
Rapp, R. *See* Mandelkow, Schultheiss, Rapp, Müller, and Mandelkow.
Reese, T. S. *See* Bridgman, Kachar, and Reese.
Reichardt, L. F. *See* Shelton and Reichardt.
Reisine, T., Rougon, G., and Barbet, J. Liposome delivery of cyclic AMP-dependent protein kinase inhibitor into intact cells: specific blockade of cyclic AMP-mediated adrenocorticotropin release from mouse anterior pituitary tumor cells. 1630.
Renaud, M. *See* Binder, Tourmente, Roth, Renaud, and Gehring.
Ressler, A. *See* Ciment, Ressler, Letourneau, and Weston.
Riches, D. W. H., and Henson, P. M. Bacterial lipopolysaccharide suppresses the production of catalytically active lysosomal acid hydrolases in human macrophages. 1606.
Richter-Landsberg, C., and Jastorff, B. The role of cAMP in nerve growth factor-promoted neurite outgrowth in PC12 cells. 821.
Riederer, B. M., Zagon, I. S., and Goodman, S. R. Brain spectrin(240/235) and brain spectrin(240/235E): two distinct spectrin subtypes with different locations within mammalian neural cells. 2088.
Rieger, F. *See* Nicolet, Pinçon-Raymond, and Rieger.
Rimmer, C. S. *See* Knox, Crooks, and Rimmer.
Rindler, M. J. *See* Gottlieb, Gonzalez, Rizzolo, Rindler, Adesnik, and Sabatini.
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Rizzolo, L. *See* Gottlieb, Gonzalez, Rizzolo, Rindler, Adesnik, and Sabatini.
Roberson, M. M. *See* Bols, Roberson, Haywood-Reid, Cerra, and Barondes.
Roberts, T. M., Pavalko, F. M., and Ward, S. Membrane and cytoplasmic proteins are transported in the same organelle complex during nematode spermatogenesis. 1787.
— *See* Ward, Roberts, Strome, Pavalko, and Hogan.
Robinson, J. M., Okada, T., Castellot, J. J., Jr., and Karnovsky, M. J. Unusual lysosomes in aortic smooth muscle cells: presence in living and rapidly frozen cells. 1615.
Robinson, M. S., and Pearse, B. M. F. Immunofluorescent localization of 100K coated vesicle proteins. 48.
Rocher, S. *See* Duband, Rocher, Chen, Yamada, and Thiery.
Rodionov, V. I. *See* Kuznetsov, Rodionov, Nadezhdina, Murphy, and Gelfand.
Rodman, J. S., Seidman, L., and Farquhar, M. G. The membrane composition of coated pits, microvilli, endosomes, and lysosomes is distinctive in the rat kidney proximal tubule cell. 77.
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Rose, J. K. *See* Puddington, Machamer, and Rose.
Roth, J. *See* Binder, Tourmente, Roth, Renaud, and Gehring.
— *See* Lucocq, Brada, and Roth.
Roth, M. G., Doyle, C., Sambrook, J., and Gething, M.-J. Heterologous transmembrane and cytoplasmic domains direct functional chimeric influenza virus hemagglutinins into the endocytic pathway. 1271.
Rothman, J. H. *See* Stevens, Rothman, Payne, and Schekman.
Rothnagel, J. A., and Rogers, G. E. Trichohyalin, an intermediate filament–associated protein of the hair follicle. 1419.
Rothwell, S. W., Grasser, W. A., and Murphy, D. B. End-to-end annealing of microtubules in vitro. 619.
Rougon, G. *See* Reisine, Rougon, and Barbet.
Rozengurt, E. *See* Mendoza, Schneider, Lopez-Rivas, Sinnett-Smith, and Rozengurt.
— *See* Zachary, Sinnett-Smith, and Rozengurt.
Runyan, R. B., Maxwell, G. D., and Shur, B. D. Evidence for a novel enzymatic mechanism of neural crest cell migration on extracellular glycoconjugate matrices. 432.
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Sache, E. *See* Castellot, Choay, Lormeau, Petitou, Sache, and Karnovsky.
Sahyoun, N. *See* Burgess, Sahyoun, Blanchard, LeVine, Chang, and Cuatrecasas.
Salas, P. J. I., Misek, D. E., Vega-Salas, D. E., Gundersen, D., Cereijido, M., and Rodriguez-Boulan, E. Microtubules and actin filaments are not critically involved in the biogenesis of epithelial cell surface polarity. 1853.
Sale, W. S. The axonemal axis and Ca^{2+}-induced asymmetry of active microtubule sliding in sea urchin sperm tails. 2042.
Salmon, E. D. *See* Cassimeris, Wadsworth, and Salmon.
— *See* Wadsworth and Salmon.
Salomonsky, N. L. *See* Bloodgood, Woodward, and Salomonsky.
Salpeter, M. M. *See* Knaack, Shen, Salpeter, and Podleski.
Sambrook, J. *See* Roth, Doyle, Sambrook, and Gething.
Samrey, U. *See* Broughton, Wong, Lewin, Samrey, Myint, Meyer, Dowling, and Simon.
Sanderson, R. D., Fitch, J. M., Linsenmayer, T. F., and Mayne, R. Fibroblasts promote the formation of a continuous basal lamina during myogenesis in vitro. 740.
Sandoval, I. V. *See* Bonifacino, Perez, Klausner, and Sandoval.
Sandvig, K. *See* Olsnes, Tønnessen, and Sandvig.
— *See* van Deurs, Tønnessen, Petersen, Sandvig, and Olsnes.
Sanes, J. R., Schachner, M., and Covault, J. Expression of several adhesive macromolecules (N-CAM, L1, J1, NILE, uvomorulin, laminin, fibronectin, and a heparan sulfate proteoglycan) in embryonic, adult, and denervated adult skeletal muscles. 420.
— *See* Covault and Sanes.
— *See* Covault, Merlie, Goridis, and Sanes.
Sanger, J. M., Mittal, B., Pochapin, M. B., and Sanger, J. W. Myofibrillogenesis in living cells microinjected with fluorescently labeled alpha-actinin. 2053.
Sanger, J. W. *See* Sanger, Mittal, Pochapin, and Sanger.
Santoni, M.-J. *See* Nguyen, Mattei, Mattei, Santoni, Goridis, and Jordan.
Sartore, S. *See* Gorza, Sartore, Thornell, and Schiaffino.
Sato, M. *See* Kaiser, Sato, Ebert, and Pollard.
Sänger, A. *See* Schwerzmann, Cruz-Orive, Eggmann, Sänger, and Weibel.
Sauder, D. N. *See* Baumann, Hill, Sauder, and Jahreis.
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Schachner, M. *See* Sanes, Schachner, and Covault.
— *See* ffrench-Constant, Miller, Kruse, Schachner, and Raff.
Schekman, R. *See* Stevens, Rothman, Payne, and Schekman.
Scheller, R. H. *See* Kreiner, Sossin, and Scheller.
Schiaffino, S. *See* Gorza, Sartore, Thornell, and Schiaffino.
Schibler, M. J., and Cabral, F. Taxol-dependent mutants of Chinese hamster ovary cells with alterations in α- and β-tubulin. 1522.
Schiff, J. M., Fisher, M. M., Jones, A. L., and Underdown, B. J. Human IgA as a heterovalent ligand: switching from the asialoglycoprotein receptor to secretory component during transport across the rat hepatocyte. 920.
Schindler, M., and Jiang, L.-W. Nuclear actin and myosin as control elements in nucleocytoplasmic transport. 859.
— *See* Jiang and Schindler.
— *See* Metcalf, Villanueva, Schindler, and Wang.
Schlessinger, J. *See* Miller, Beardmore, Kanety, Schlessinger, and Hopkins.
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Schneider, J. A. *See* Mendoza, Schneider, Lopez-Rivas, Sinnett-Smith, and Rozengurt.
Scholz, M. *See* Lang, Scholz, and Peters.
Schonbrunn, A. *See* Presky and Schonbrunn.
Schubert, D., LaCorbiere, M., and Esch, F. A chick neural retina adhesion and survival molecule is a retinol-binding protein. 2295.
Schultheiss, R. *See* Mandelkow, Schultheiss, Rapp, Müller, and Mandelkow.
Schulze, E., and Kirschner, M. Microtubule dynamics in interphase cells. 1020.
Schwartz, J. H. *See* Eppler, Bayley, Greenberg, and Schwartz.
Schwartz, M. A., and Luna, E. J. Binding and assembly of actin filaments by plasma membranes from *Dictyostelium discoideum*. 2067.
Schwartz, R. J. *See* Hayward and Schwartz.
Schwerzmann, K., Cruz-Orive, L. M., Eggmann, R., Sänger, A., and Weibel, E. R. Molecular architecture of the inner membrane of mitochondria from rat liver: a combined biochemical and stereological study. 97.
Scott, R. E. *See* Wier and Scott.
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Seidman, L. *See* Rodman, Seidman, and Farquhar.
Sha'afi, R. I., Shefcyk, J., Yassin, R., Molski, T. F. P., Volpi, M., Naccache, P. H., White, J. R., Feinstein, M. B., and Becker, E. L. Is a rise in intracellular concentration of free calcium necessary or sufficient for stimulated cytoskeletal-associated actin? 1459.
Shafiq, S. A. *See* Zhang, Shafiq, and Bader.
Sharp, G. *See* Nyman, Hallman, Hadlaczky, Pettersson, Sharp, and Ringertz.
Shea, D. *See* Mar, Lee, Shea, and Walsh.
Shefcyk, J. *See* Sha'afi, Shefcyk, Yassin, Molski, Volpi, Naccache, White, Feinstein, and Becker.
Shelton, D. L., and Reichardt, L. F. Studies on the regulation of beta-nerve growth factor gene expression in the rat iris: the level of mRNA–encoding nerve growth factor is increased in irises placed in explant cultures in vitro, but not in irises deprived of sensory or sympathetic innervation in vivo. 1940.
Shen, B. W., Josephs, R., and Steck, T. L. Ultrastructure of the intact skeleton of human erythrocyte membrane. 997.
Shen, I. *See* Knaack, Shen, Salpeter, and Podleski.
Sherline, P. *See* Lewis, Sherline, and Cowan.
— *See* Lewis, Villasante, Sherline, and Cowan.
Shooter, E. M. *See* Müller, Ignatius, Hangen, and Shooter.
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Silverstein, S. C. *See* Lombardi, Montesano, Furie, Silverstein, and Orci.
— *See* McNeil, Swanson, Wright, Silverstein, and Taylor.
Simionescu, M. *See* Ghitescu, Fixman, Simionescu, and Simionescu.
Simionescu, N. *See* Ghitescu, Fixman, Simionescu, and Simionescu.

Simon, R. *See* Broughton, Wong, Lewin, Samrey, Myint, Meyer, Dowling, and Simon.
Simons, J. W., Noga, S. J., Colombani, P. M., Beschorner, W. E., Coffey, D. S., and Hess, A. D. Cyclosporine A, an in vitro calmodulin antagonist, induces nuclear lobulation in human T cell lymphocytes and monocytes. 145.
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— *See* Zachary, Sinnett-Smith, and Rozengurt.
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Sowers, A. E. A long-lived fusogenic state is induced in erythrocyte ghosts by electric pulses. 1358.
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Spiegel, S., Yamada, K. M., Hom, B. E., Moss, J., and Fishman, P. H. Fibrillar organization of fibronectin is expressed coordinately with cell surface gangliosides in a variant murine fibroblast. 1898.
Sporn, M. B. *See* Assoian and Sporn.
Squire, J. *See* Cantino and Squire.
Staufenbiel, M., and Lazarides, E. Assembly of protein 4.1 during chicken erythroid differentiation. 1157.
Steck, T. L. *See* Shen, Josephs, and Steck.
Steffen, W., Fuge, H., Dietz, R., Bastmeyer, M., and Müller, G. Aster-free spindle poles in insect spermatocytes: evidence for chromosome-induced spindle formation? 1679.
Stenberg, P. E. *See* Takemura, Stenberg, Bainton, and Werb.
Stern, D., Brett, J., Harris, K., and Nawroth, P. Participation of endothelial cells in the protein C–protein S anticoagulant pathway: the synthesis and release of protein S. 1971.
Stevens, T. H., Rothman, J. H., Payne, G. S., and Schekman, R. Gene dosage-dependent secretion of yeast vacuolar carboxypeptidase Y. 1551.
Stoppelli, M. P., Verde, P., Grimaldi, G., Locatelli, E. K., and Blasi, F. Increase in urokinase plasminogen activator mRNA synthesis in human carcinoma cells is a primary effect of the potent tumor promoter, phorbol myristate acetate. 1235.
Sträuli, P. *See* Müller-Glauser, Humbel, Glatt, Sträuli, Winterhalter, and Bruckner.
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Strome, S. *See* Ward, Roberts, Strome, Pavalko, and Hogan.
Studzinski, G. P. *See* Brelvi and Studzinski.
Suchard, S. J. *See* Bourguignon, Walker, Suchard, and Balazovich.
Sugrue, S. P., and Hay, E. D. The identification of extracellular matrix (ECM) binding sites on the basal surface of embryonic corneal epithelium and the effect of ECM binding on epithelial collagen production. 1907.
Sun, T.-T. *See* Eichner, Sun, and Aebi.
Suzuki, S., and Pollack, G. H. Bridgelike interconnections between thick filaments in stretched skeletal muscle fibers observed by the freeze-fracture method. 1093.
Swanson, J. A. *See* McNeil, Swanson, Wright, Silverstein, and Taylor.

T

Takeda, M. *See* Emr, Vassarotti, Garrett, Geller, Takeda, and Douglas.
Takemura, R., Stenberg, P. E., Bainton, D. F., and Werb, Z. Rapid redistribution of clathrin onto macrophage plasma membranes in response to Fc receptor–ligand interaction during frustrated phagocytosis. 55.
Tavassoli, M., Kishimoto, T., and Kataoka, M. Liver endothelium mediates the hepatocyte's uptake of ceruloplasmin. 1298.
Taylor, D. L. *See* Amato and Taylor.
— *See* Luby-Phelps, Taylor, and Lanni.
— *See* McNeil, Swanson, Wright, Silverstein, and Taylor.
Tedeschi, B., Barrett, J. N., and Keane, R. W. Astrocytes produce interferon that enhances the expression of H-2 antigens on a subpopulation of brain cells. 2244.
Teitelbaum, S. L. *See* Blair, Kahn, Crouch, Jeffrey, and Teitelbaum.
Thiersé, D. *See* Bader, Trifaró, Langley, Thiersé, and Aunis.
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— *See* Duband, Rocher, Chen, Yamada, and Thiery.
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— *See* Kohorn, Harel, Chitnis, Thornber, and Tobin.
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Tinnel, N. L. *See* Goldmacher, Tinnel, and Nelson.
Tobin, E. M. *See* Chitnis, Harel, Kohorn, Tobin, and Thornber.
— *See* Kohorn, Harel, Chitnis, Thornber, and Tobin.
Todd, M. S. *See* Carey, Todd, and Rafferty.
Tokunaka, S. *See* Antin, Tokunaka, Nachmias, and Holtzer.
Tomozawa, Y. *See* Giulian, Allen, Baker, and Tomozawa.
Tønnessen, T. I. *See* Olsnes, Tønnessen, and Sandvig.
— *See* van Deurs, Tønnessen, Petersen, Sandvig, and Olsnes.
Tourmente, S. *See* Binder, Tourmente, Roth, Renaud, and Gehring.
Trelstad, R. L. *See* Hayashi, Ninomiya, Parsons, Hayashi, Olsen, and Trelstad.
Trifaró, J.-M. *See* Bader, Trifaró, Langley, Thiersé, and Aunis.
Tsukita, S., Tsukita, S., Kobayashi, T., and Matsumoto, G. Subaxolemmal cytoskeleton in squid giant axon. II. Morphological identification of microtubule- and microfilament-associated domains of axolemma. 1710.
Tsukita, S. *See* Tsukita, Tsukita, Kobayashi, and Matsumoto.
Turner, P. R., Jaffe, L. A., and Fein, A. Regulation of cortical vesicle exocytosis in sea urchin eggs by inositol 1,4,5-triphosphate and GTP-binding protein. 70.
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van Adelsberg, J., and Al-Awqati, Q. Regulation of cell pH by Ca^{+2}-mediated exocytotic insertion of H^+-ATPases. 1638.
van den Pol, A. N., di Porzio, U., and Rutishauser, U. Growth cone localization of neural cell adhesion molecule on central nervous system neurons in vitro. 2281.
van Deurs, B., Tønnessen, T. I., Petersen, O. W., Sandvig, K., and Olsnes, S. Routing of internalized ricin and ricin conjugates to the Golgi complex. 37.
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Vega-Salas, D. E. *See* Salas, Misek, Vega-Salas, Gundersen, Cereijido, and Rodriguez-Boulan.
Verde, P. *See* Stoppelli, Verde, Grimaldi, Locatelli, and Blasi.
Villanueva, M. A. *See* Metcalf, Villanueva, Schindler, and Wang.
Villasante, A. *See* Lewis, Villasante, Sherline, and Cowan.
Voglmayr, J. K. *See* Wolf, Hagopian, Lewis, Voglmayr, and Fairbanks.
Volberg, T., Geiger, B., Kartenbeck, J., and Franke, W. W. Changes in membrane–microfilament interaction in intercellular adherens junctions upon removal of extracellular Ca^{2+} ions. 1832.

Volpi, M. *See* Sha'afi, Shefcyk, Yassin, Molski, Volpi, Naccache, White, Feinstein, and Becker.

W

Waddell, D. R., and Duffy, K. T. I. Breakdown of self/nonself recognition in cannibalistic strains of the predatory slime mold, *Dictyostelium caveatum*. 298.
Wadsworth, P., and Salmon, E. D. Analysis of the treadmilling model during metaphase of mitosis using flurorescence redistribution after photobleaching. 1032.
— *See* Cassimeris, Wadsworth, and Salmon.
Wagner, D. D., Mayadas, T., and Marder, V. J. Initial glycosylation and acidic pH in the Golgi apparatus are required for multimerization of von Willebrand factor. 1320.
Wagner, J. *See* Drenckhahn and Wagner.
Waldvogel, F. A. *See* Lew, Monod, Waldvogel, Dewald, Baggiolini, and Pozzan.
Walker, G. *See* Bourguignon, Walker, Suchard, and Balazovich.
Wallace, B. G. Aggregating factor from *Torpedo* electric organ induces patches containing acetylcholine receptors, acetylcholinesterase, and butyrylcholinesterase on cultured myotubes. 783.
Wallis, K. T. *See* Murphy, Grasser, and Wallis.
Walsh, C. J. *See* Mar, Lee, Shea, and Walsh.
Wang, J. L. *See* Hsu and Wang.
— *See* Metcalf, Villanueva, Schindler, and Wang.
— *See* Moutsatsos, Davis, and Wang.
Wang, Y.-L. *See* Meigs and Wang.
Ward, S., Roberts, T. M., Strome, S., Pavalko, F. M., and Hogan, E. Monoclonal antibodies that recognize a polypeptide antigenic determinant shared by multiple *Caenorhabditis elegans* sperm-specific proteins. 1778.
— *See* Roberts, Pavalko, and Ward.
Wassarman, P. M. *See* Bleil and Wassarman.
Waters, M. G., and Blobel, G. Secretory protein translocation in a yeast cell-free system can occur posttranslationally and requires ATP hydrolysis. 1543.
Webb, W. W. *See* Menon, Holowka, Webb, and Baird.
Weber, K. *See* Bartnik, Osborn, and Weber.
— *See* Hill and Weber.
Weibel, E. R. *See* Schwerzmann, Cruz-Orive, Eggmann, Sänger, and Weibel.
Weijer, C. J. *See* Gottmann and Weijer.
Weissman, A. M., Klausner, R. D., Rao, K., and Harford, J. B. Exposure of K562 cells to anti-receptor monoclonal antibody OKT9 results in rapid redistribution and enhanced degradation of the transferrin receptor. 951.
Werb, Z., Hembry, R. M., Murphy, G., and Aggeler, J. Commitment to expression of the metalloendopeptidases, collagenase and stromelysin: relationship of inducing events to changes in cytoskeletal architecture. 697.
— *See* Takemura, Stenberg, Bainton, and Werb.
Weston, J. A. *See* Ciment, Ressler, Letourneau, and Weston.
White, J. R. *See* Sha'afi, Shefcyk, Yassin, Molski, Volpi, Naccache, White, Feinstein, and Becker.
— *See* Gething, Doms, York, and White.
Wier, M. L., and Scott, R. E. Regulation of the terminal event in cellular differentiation: biological mechanisms of the loss of proliferative potential. 1955.
Wight, T. N. *See* Kinsella and Wight.
Wilkens, J. A., and Lin, S. A re-examination of the interaction of vinculin with actin. 1085.
Wilt, F. *See* Benson, Benson, and Wilt.
Winkler, H. *See* Patzak and Winkler.
Winterhalter, K. H. *See* Müller-Glauser, Humbel, Glatt, Sträuli, Winterhalter, and Bruckner.
Wolf, D. E., Hagopian, S. S., and Ishijima, S. Changes in sperm plasma membrane lipid diffusibility after hyperactivation during in vitro capacitation in the mouse. 1372.
—, **Hagopian, S. S., Lewis, R. G., Voglmayr, J. K., and Fairbanks, G.** Lateral regionalization and diffusion of a maturation-dependent antigen in the ram sperm plasma membrane. 1826.
Wolfgang, W. J., Fristrom, D., and Fristrom, J. W. The pupal cuticle of *Drosophila*: differential ultrastructural immunolocalization of cuticle proteins. 306.
Wong, C. H. *See* Broughton, Wong, Lewin, Samrey, Myint, Meyer, Dowling, and Simon.
Woodward, M. P. *See* Bloodgood, Woodward, and Salomonsky.
Wordeman, L., McDonald, K. L., and Cande, W. Z. The distribution of cytoplasmic microtubules throughout the cell cycle of the centric diatom *Stephanopyxis turris*: their role in nuclear migration and positioning in the mitotic spindle during cytokinesis. 1688.
Wright, S. D. *See* Cramer, Milks, Brontoli, Ojakian, Wright, and Showell.
— *See* McNeil, Swanson, Wright, Silverstein, and Taylor.

Y

Yamada, K. M. *See* Akiyama, Yamada, and Yamada.
— *See* Duband, Rocher, Chen, Yamada, and Thiery.
Yamada, S. S. *See* Akiyama, Yamada, and Yamada.
Yamamoto, Y. *See* Kobayashi, Tsukita, Tsukita, Yamamoto, and Matsumoto.
Yanagimoto, K. C. *See* Fisher and Yanagimoto.
Yassin, R. *See* Sha'afi, Shefcyk, Yassin, Molski, Volpi, Naccache, White, Feinstein, and Becker.
Yeoman, L. C. *See* Bennett, Spector, and Yeoman.
Yguerabide, J. *See* Jesaitis and Yguerabide.
Yokoo, K. M. *See* Jones, Yokoo, and Goldman.
York, D. *See* Gething, Doms, York, and White.
Young, D. G. *See* Giulian and Young.

Z

Zachary, I., Sinnett-Smith, J. W., and Rozengurt, E. Early events elicited by bombesin and structurally related peptides in quiescent Swiss 3T3 cells. I. Activation of protein kinase C and inhibition of epidermal growth factor binding. 2211.
Zagon, I. S. *See* Riederer, Zagon, and Goodman.
Zhang, Y., Shafiq, S. A., and Bader, D. Detection of a ventricular-specific myosin heavy chain in adult and developing chicken heart. 1480.
Zuniga, M. C., and Hood, L. E. Clonal variation in cell surface display of an H-2 protein lacking a cytoplasmic tail. 1.